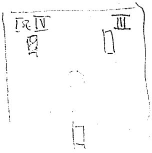
Notebook, N-01-08-12

Pyrometers

		(10)	(100)
(old) I	80°	A 47.9	B 101.6
II	80°	A 95.8	B 57.9
III	80°	A 95.8	B 56
IV	80°F	A 94.4	B 55.9
V	Broken.		
	Temp	Resistance.	

I with old wires only
(100)
B 101.6 ~.7
with short heavy
copper extensions
101.4

2)



IV above I and at same distance from front wall

I	IV	III	Therm.
95.6	46.4	43	378°
			422
94.9 58.1			
60			520
93.8			540
93.7 60.1			549

I	IV	III	T
	~~10~~	105.7	555
	A 104.1		538
	B 42		538
92.8			562
60.15			583

Pos of III and IV reversed:
I above IV

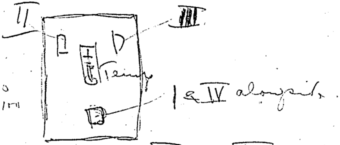
I	IV	III	T
			569
60.0			
93.4			
	B 42.1		575
	A 104.5		526
		A 105.65	576
		39.9	579

From all numbers under heading T to be subtracted 18-22°

(at 200: 23, at 500 18°

Actual Pos. of new Pyrometers: (~ 45 and 102

(B)


II
III
Temp
I & IV alongside

A = 10
B = 100

I	II	III	IV	T
95 B				404
58 A				405
	101.1 A			407
	47.1 B			407
		44.8 B		407
		102.9 A		407
			102.8	405
			45	407
95				395
57.9 A				

Aug 12th

Run LXVII

Aug 14th Run $\boxed{\text{LXVIII}}$

Pyrometers II & I are in some way broken — certainly caused by the heating.

Pyrometer VII is mounted in the opening below the drum and is protected against radiating heat by a shaped iron and a similar lining piece of sheet asbestos

III shows

B 56.2 with 100 and

A 95.9 " 10 at 72½ °F

There is this time used an additional absorber containing Charcoal soaked in H_2SO_4 [illegible] [illegible] while absorber I has a very small column of H_2SO_4,

Weight of Absorber I free from Rubber connections
12 lbs 10.2 oz
with Hoses attached
12 lbs 10.8 oz.

Second absorber free
~~10 lbs 11.4 oz~~
10 " 8.6

2.55 - 35.3
3.05 - 32.3
15 - 30.5
25 - 28.6 - 12 8 11.3
35 - 31.6
45 - 31.4
50 - 31.1

3.55 - 31.1
4. - - 31.- 12 8 15 oz
05 - 30.2
10 - 30.-
15 - 29.7 15 1/2 oz
20 - 29.3
25 - 29.2
30 - 29.1 - 13 8 2 10 oz.
35 - 29.-
12.6 19/10 40 - 28.8 - 12.15.9 (add 1/2 oz)
#1 {12.15.7 45 - 28.5
50 - 28.8
(#2 10.9.2 5. - - 29.1 - 13 8
#2) 10.6.8 05 - 27.2
10.7.8 10 - 26.7
15 - 26.5 - 13 8 1.3 oz.
20 - 26.4
25 - 26.4 1.7
30 - 26.2
35 - 26.0
40 - 25.8 2.0 oz.
45 - 25.8
50 - 25.8
55 - 25.2 2.6
6. - - 25.- 3.0
15 - 24.8 13.3.4
#2-10-8.2
30 - 24.8
40 - 24.9
50 - 25.3
7.05 - 24.8

7.10 – 24.8 – 13.6 oz.
20 – 25. –
30 – 25.4 – 13.7
40 – 25.8 –
50 – 25.6
8. – – 25.9 – 13.8 oz.
#2-10.10.5 10 – 26.4
20 –

Cut out.

Absorbers: I 9 ℔ 12.5 oz.
II 8 ℔ 0.5 oz.

without conn. I. 10 ℔ 0.5 oz.
II.

with conn. I. 10 ℔ 2.8 oz.

II 8 ℔ 1.4 oz.

H_2SO_4 & Coke does not work as absorbing device. II 8 ℔ 1.5

Aug. 15th. Run LXIX.

5 lbs of Te_2O_3 from [illegible]

Several little improvements on Drum.

Temp to be kept at 750 – 785 °F i.e. 33.2 – 33.5 on Pyrometer III

For absorbing the is used 2 bottles of $CaCl_2$ – dried by ourselves – at about 500 – 600 °F.

Drum revolves 3 times in 1 minute.

[illegible]: 8.20 - 53.[illegible] [illegible] 10 & 2,8 og.
25 - 52.3
30 - 50.[illegible]
35 - 47.6
40 - 44.[illegible]
45 - 42.8
50 - 41.-
55 - 40.6
9.00 - 39.9
05 - 39.4.
10 - 37.8
15 - 3[illegible].[illegible]
20 - 39.2
25 - 3[illegible].6
30 - "
35 - 38.4 Start [illegible] - 3,7 og.
40 - 39.0
45 - 39.0
50 - 38.8
55 - 36.2
10.00 - 35.2 - 10 - 6,3 og.
05 - 34.9
10 - 34.8
15 - 35.-
20 - "
25 - "
30 - " - 10 - 7 og.
35 - 35.3
40 - 35.4
45 - "
50 - "
55 - "

Time: 11.00 - 35.4 - 10B 7.7 oz.
05 - "
10 - "
15 - 35.5
20 - "
25 - 36.2 7.7
30 - 36.5
35 - "
40 - 35.7
45 - 35.4
50 - "
55 - 34.3
12.00 - 34.1 8.3
05 - 34.-
10 - 34.-
15 - 34.8
20 - 35.5
25 - 34.2
30 - 34.- 8.1 }
35 - 33.8 - 108 9.1
40 - "
45 - 33.5
50 - 33.4
55 - 33.4 9.4
1.00 - 33.3
05 - "
10 - 34.2
15 - 35.2 9.7
20 - 35.5
25 - "
30 - "
35 - "

Rise of Gas increased for 10 min

Time 1.40 - 34.2 10B 10.1
45 - 34.0 10.2
50 - 34.8
55 - 35.4
2.00 - 39.0 10.0 (+1)
05 - 40.-
10 - 40.6
15 - 39.8
20 - 40.2
25 - 38.0
30 - 34.4
35 - 34.2
40 - 36.6
45 - 32.6
55 - 30.8
3.00 - 32.2
05 - 32.8 10.7
10 - 33.0
15 - 33.4
20 - 36.0
25 - 35.4
30 - 34.8
35 - 33.6
40 - 33.0
45 - 35.4
50 - 34.7
55 - 33.4
4.00 - 34.3 - 10B 11.3
05 - 34.-
10 - 33.5
15 - 33.1

4. 30 — 31.00
4. 37 — 33.5
4. 57 — 33.2 10.12 oz
[illegible] 1.7
5. 05 — 33.2
11 — 33.8
30 — 33.8
40 — 33.7
45 — "
50 — 33.0
6 .00 — "
10 — 32.6 #1 10. 5 oz
20 — "
#2. 8R14
40 — 33.2
50 — 32.0 #1. 10 - 5.3
55 — 32.4
7. 00 — " =2. 8-12

108 5 oz
#2. 8.7
9.2 oz
~~(#2 3.7 oz)~~

15 32.2 new Abs 9 - 4.1
#2 814.7
→814.7
11.5 oz
#1 9-5.2
25 32.7
35 32.
45 .45
#2 9.
55 32.7
#1 9-5.3
8. — 31.5

8.05
~~32~~.4
#1) 9.5.8
#2) 9 - 00
Time: 8.15 - 32.0
9.6.2
8.35 — 33.1
8.45 Off
(1) 9 6.1
(2) 9.05

4.5
3.
6.5
9.
3
15 oz + 8/10

9.2
(7.85) 2.7
1.1
13.0 oz
3 oz
8.05 10.6.4